Amendments to the Specification

Please replace paragraphs [0007], [0008], and [0013] of the specification with the following rewritten paragraphs of like number:

--**[0007]** This object is achieved by the use of materials (glass types) having special optical properties as well as particular design features, such as the geometry of the boundary surfaces and of the air spaces. A zoom system of the present invention comprises a first lens group having lenses (11) and (12), a second lens group having lenses (13) and (14), a third lens group having lenses (15) and (16), and a fourth lens group having lenses (17) and (18) arranged in sequence and aligned along an optical axis, the first and fourth lens groups being mirror images of one another, the second and third lens groups being mirror images of one another, a first air gap between the first and second lens groups, a second air gap between the second and third lens groups, and a third air gap between the third and fourth lens groups, each of the second and third lens groups being movable along the optical axis thereby enabling variation of the first, second, and third air gaps, wherein the lenses (11 through 18) and air gaps have the following geometric and optical properties:

Boundary surface or Medium	Radius r_l (mm)	Thickness or air gap d_l (mm) [air gaps given at first limit, intermediate position, and second limit]	n_d	ν_d
S1	29.48			
Lens 11		2.0	1.72342	37.95
S2	18.62			
Lens 12		3.5	1.49700	81.63
S3	-176.25			
Air Gap 1		31.65...23.18...2.00		
S4	-123.57			
Lens 13		2.0	1.57956	53.87
S5	12.93			
Lens 14		3.0	1.76182	26.52
S6	19.69			
Air Gap 2		14.70...2.64...15.35		
S7	-19.69			
Lens 15		3.0	1.76182	26.52
S8	-12.93			
Lens 16		2.0	1.57956	53.87

S9	123.57			
Air Gap 3		2.65...23.18...31.65		
S10	176.25			
Lens 17		3.5	1.49700	81.63
S11	-18.62			
Lens 18		2.0	1.72342	37.95
S12	-29.48			

The present invention also covers a microscope, preferably a stereomicroscope, incorporating the zoom system. The microscope includes an eyepiece, wherein the field curvature of the zoom system is preferably adapted to the field curvature of the eyepiece.

[0008] The drawings schematically depict a zoom system according to the present invention for a surgical microscope, wherein:

Fig. 1 is a schematic diagram of a zoom system formed in accordance with an embodiment of the present invention, wherein movable lens groups of the zoom system are shown at a first limit position;

Fig. 2 is a schematic diagram of the zoom system shown in Fig. 1, wherein the movable lens groups are shown at an intermediate position giving 1:1 magnification, and an optical axis and light beam are also shown; ~~and~~

Fig. 3 is a schematic diagram of the zoom system shown in Fig. 1, wherein movable lens groups of the zoom system are shown at a second limit position; and

Fig. 4 is a schematic representation of a stereomicroscope incorporating the zoom system shown in Fig. 1.--

[0013] Fig. 4 depicts a two-channel stereomicroscope 20 comprising an eyepiece 22 and a zoom system 24 configured as described above. As a result of the special choice of materials, and the geometries of the boundary surfaces (S1 through S12) and air or gas spaces (air gaps) (AG1 through AG3) described in Table 2 below, chromatic aberrations (especially those of the secondary spectrum) are reduced, and an improvement in the context of apochromaticity, as well as a reduction in astigmatism and flatness, are achieved. The field curvature of the new zoom system 24 according to the present invention thus corresponds approximately to the field curvature of the eyepiece 22.--

On page 6, after line 24, please insert the following items to the PARTS LIST:

--20 Microscope
22 Eyepiece
24 Zoom system--

Amendments to the Drawings:

Two sheets of amended drawing are attached. Please replace the sheet labeled "1/1" with the attached sheet labeled "1/2". Please add the new sheet labeled "2/2" which includes proposed new Fig. 4.

Attachment: Two Drawing Sheets (One Replacement Sheet and One New Sheet)